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April 20, 2001

Ex Parte Presentation

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Ms. Magalie Roman Salas Secretary Federal Communications Commission 445 12th Street, S.W. Washington, D.C. 20554 EX PARTE OR LATE FILEDAPR 2 0 2001

PHINEMAL COMMUNICATIONS COMMINGERING
OFFICE OF THE SECRETARY

Re: Application by Southwestern Bell for Provision of In-Region, InterLATA Services in Missouri, CC Docket No. 01-88

Dear Ms. Salas:

On behalf of SBC Communications Inc. ("SBC"), I am submitting a document entitled Loop Qualification Attestation Examination Scope and Approach (Apr. 20, 2001), to which is attached, as Appendix 1, the Report of Management on the Provision of Actual Loop Qualification Information to Competitive Local Exchange Carriers and Ernst & Young's Report of Independent Accountants. As Brian Horst explained in his Affidavit (App. A, Tab 23), Ernst & Young had not yet completed its testing of the Loop Qualification System at the time the Application was filed. According to Mr. Horst, "[t]he final report containing our opinion on the accuracy of management's assertion will be issued when our testing in a live production environment is complete." Horst Aff. ¶ 7. That testing is now complete, and I am submitting the final report with this letter.

Pursuant to the Commission's rules governing ex parte communications, I am enclosing two copies of this letter and attachments. Please file stamp and return the additional copy. Thank you for your kind assistance in this matter.

Sincerely,

Geoffrey M. Klineberg

Attachments

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Magalie Roman Salas April 20, 2001 Page 2

Ex Parte Presentation

Tom Navin cc:

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Southwestern Bell Telephone Company, Pacific Bell, Nevada Bell and Southern New England Telephone Company (collectively the "Telephone Companies")

Loop Qualification Attestation Examination Scope and Approach

April 20, 2001

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Background

Management of Southwestern Bell Telephone Company (SWBT), Pacific Bell (PB), Nevada Bell (NB) and Southern New England Telephone Company (SNET) (collectively the "Telephone Companies") is responsible for providing Competitive Local Exchange Carriers (CLEC) access to actual loop qualification information (also referred to herein as loop makeup information). From April 3 through April 13, 2001, the Telephone Companies implemented enhancements to their Loop Qualification middleware system ("Loop Qualification System" or "the System"). With these enhancements, the Loop Qualification System will return actual loop makeup information (e.g., total loop length, loop length by segment, loop length by gauge, 26 gauge equivalent loop length, quantity of load coils, length of bridge taps) on a loop connected to the customer premise address requested by CLEC, if such actual loop makeup information exists in the Telephone Companies' Loop Facilities Assignment and Control System (LFACS) for such a loop and can be located, retrieved and returned within 120 seconds. The loop makeup information is retrieved through a two-step process. The System submits a request to LFACS to identify actual loop information for loops connected to the specified customer premise address. The medium type of the loop is determined – if fiber to the curb or Digital Loop Carrier (DLC) only is identified, actual loop information is returned to the CLEC interface. If metal (copper), DLC/copper combination or Digital Added Main Line (DAML) medium type is identified, the logic within the System then selects the most appropriate loop with corresponding loop makeup information in LFACS. The logic prioritizes loop information in the following order: non-loaded copper loop, loaded copper loop, DAML and DLC. The second step requests detailed loop makeup information from LFACS for the selected loop. It should be noted that DLC and Pair Gain are equivalent terms.

Ernst & Young (E&Y) was engaged by Management of the Telephone Companies to perform an attestation examination and report on management's assertion that, as of April 13, 2001, the Loop Qualification System of the Telephone Companies, in response to a valid CLEC request, performs a search of the LFACS database for actual loop makeup information associated with a loop serving the customer premise address and returns within 120 seconds actual loop makeup information or design loop makeup information (if actual loop makeup information is not available) to a CLEC interface. The criteria that E&Y evaluated management's assertion against are documented in the section entitled Search Criteria below and are listed in the Report of Management on the Provision of Actual Loop Qualification Information to Competitive Local Exchange Carriers.

Search Criteria

Overview

The Loop Qualification System retrieves loop makeup information from LFACS through a two-step process. First, the Loop Qualification System submits a request to LFACS to identify information for all loops connected to the specified customer premise address. If the medium type is identified as fiber to the curb or Pair Gain only, then actual loop makeup information is returned to the CLEC interface for the first loop with loop makeup information

at that address. If the medium type is identified as metal (copper), DLC/copper combination or DAML, then the logic within the Loop Qualification System prioritizes the selection of loops in the following order:

- Non-loaded copper loop
- Loaded copper loop
- DAML
- DLC

In the second step, the Loop Qualification System requests detailed loop makeup information from LFACS for the loop selected. Both steps are described in further detail below.

Specific Search Criteria

The Loop Qualification System performs a search of the LFACS database for loop makeup information associated with a loop serving the customer premise address in the following manner:

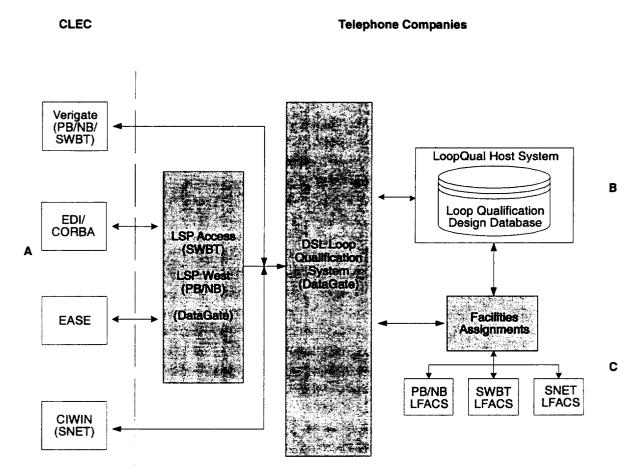
- The Loop Qualification System examines each loop inventoried in LFACS at the requested customer premise address that can be searched within 120 seconds (time limit established by the Telephone Companies to ensure a search response is returned to the requestor in a reasonable amount of time), or until it finds a non-loaded copper loop with actual loop makeup information in LFACS, leaving time to have either actual or design loop makeup information returned to the requesting interface before the 120-second system timeout deadline for the loop qualification inquiry.
- The Loop Qualification System will search for a non-loaded copper loop connected to the
 requested customer premise address for which actual loop makeup information exists. If
 the Loop Qualification System finds actual loop makeup information on a non-loaded
 copper loop connected to the requested customer premise address, then that actual loop
 makeup information will be compiled and returned to a CLEC interface for transmission
 to the requesting CLEC.
- If the Loop Qualification System cannot find actual loop makeup information on a non-loaded copper loop after searching all loops serving the requested customer premise address that can be searched within the specified time limit noted above, then actual loop makeup information that is found on a loop with the highest priority, as listed below, will be returned to the CLEC interface for transmission to the requesting CLEC: (a) loaded copper loop, (b) DAML and (c) DLC.
- If the Loop Qualification System determines that the requested customer premise address is served by fiber to the curb (FTTC), then the Loop Qualification System will return actual loop makeup information for such a loop connected to the premise if such information exists. For Pair Gain (Medium Type B), the Loop Qualification System will look at the first two loops. Loop makeup information will be returned for the first of the

loops where it is available. If neither have actual loop makeup information, then design data loop makeup information will be returned to a CLEC interface for transmission to the requesting CLEC.

• Finally, if actual loop makeup information cannot be found on any loop after searching all loops serving the requested customer premise address that can be searched within the specified time limit noted above, then design data loop makeup information will be returned to a CLEC interface for transmission to the requesting CLEC.

Valid CLEC loop qualification requests are defined as complete customer premise addresses that match such addresses stored within LFACS. If no LFACS customer premise address exists or the wirecenter is invalid, an error message is returned to the CLEC to check input data for accuracy.

DSL Loop Qualification System and Process



Notes:

- A. CLECs access DSL Loop Qualification System via a variety of interfaces.
- B. If no actual loop makeup information is available in LFACS, design data will be returned from the Loop Qualification Design Database.
- C. Multiple databases of LFACS exist by region (PB/NB, SWBT, SNET) for performance and availability. Facilities Assignments directs the LFACS queries sent by the Loop Qualification System to the appropriate LFACS database.

Loop Qualification System and Process

The Telephone Companies' Loop Qualification System is accessed directly by CLECs through a graphical user pre-order interface or an application-to-application interface (i.e., Verigate, DataGate, CIWIN, EDI/CORBA) that allows the CLEC software programs or applications to exchange information with the Telephone Companies' applications. Each client system (i.e., Verigate, CIWIN, etc.) has an initialization file that contains x- and y-coordinates identifying its location in the country that is used by the directory broker

application to point the transaction request to the appropriate Telephone Company application. CLECs submit an address (street number, street name, zip code and state) and wirecenter to the Loop Qualification System.

The Loop Qualification System uses the address information to query the appropriate LFACS database based on the source of the request. LFACS returns loop makeup information to the Loop Qualification System as documented in the section entitled Specific Search Criteria above and as documented in the Report of Management on the Provision of Actual Loop Qualification Information to Competitive Local Exchange Carriers. The loop makeup information is then returned to the CLEC through the CLEC interface from which the request originated. If no loop makeup information is found in the LFACS system, design data is returned from the Loop Qualification Design Database.

Instances and Versions Summary

In some cases, the Telephone Companies are running multiple instances of some applications as well as multiple versions in the case of DataGate. As used in this supplement, the term "version" refers to application code that has been modified and is no longer identical to the original application code. The term "instance" refers to multiple copies of the same version for load balance, volume and redundancy purposes. Instances allow the Telephone Companies to run the same version of the respective application on multiple processors located in Missouri, California or the Texas data centers. Instances are dynamic and will fluctuate over time based on CLEC volume demands, and are used for performance purposes.

A summary of instances and versions follows:

| Application | Instances | Versions |
|--|-----------|----------|
| Verigate | 2 | 1 |
| LSP Access (SWBT) | 3 | 2 |
| LSP West (PB/NB) | 3 | 2 |
| DSL Loop Qualification System (Middleware) | 2 | 1 |
| Facility Assignments | 5 | 1 |
| LFACS | 9 | 2* |

^{*}Note: SBC plans for all LFACS instances to be running the same version by April 28, 2001. Version 27.0 will be implemented April 28, 2001.

We designed our test procedures to ensure transactions tested covered all companies, multiple wire centers and each instance/version of the applications.

Verigate

Verigate is the GUI (Graphical User Interface) that provides CLECs access to the pre-order functionality provided by DataGate. Verigate resides on the client Toolbar application that is provided by the Telephone Companies (proprietary) for the CLECs' PC. The gateway allows

CLECs to query transactions such as telephone number reservation, address validation, product/feature availability information, loop qualification information (DSL) and customer service record inquiries.

DSL Loop Qualification System

Loop Qualification System is an application that allows the Telephone Companies' and CLECs' software programs or applications to request loop qualification information for DSL. The system formats loop qualification requests from the CLECs' and Telephone Companies' interfaces and routes the requests to the appropriate OSS (e.g., LFACS). The system will then select the appropriate loop based on the search criteria stated above.

Facilities Assignments

Facilities Assignments provides a gateway between the Loop Qualification System and LFACS.

Loop Facilities Assignment and Control System (LFACS)

LFACS is a series of mechanized databases that maintain an inventory of actual loop makeup information. LFACS is the system utilized by the Telephone Companies to assign and provision loop facilities in response to a customer request, whether it be a retail customer or a CLEC customer.

Objective and Procedures

Objective

To determine, in all material respects, the accuracy of management's assertion that, as of April 13, 2001, the Loop Qualification System of the Telephone Companies processes requests for actual loop makeup information as documented in the section entitled Search Criteria above and as documented in the Report of Management on the Provision of Actual Loop Qualification Information to Competitive Local Exchange Carriers.

Procedures

- 1. Documented our understanding in a narrative and flowchart format of how requests for actual loop makeup information are initiated and processed by the CLECs' and Telephone Companies' applications in each operating region (i.e., SWBT, Pacific Bell/Nevada Bell and SNET).
 - a. Documented our understanding of the different interfaces CLECs utilize to request actual loop makeup information.
 - b. Determined that requests for loop makeup information are processed in the same manner by the Telephone Companies regardless of the interface utilized by the CLEC to request actual loop makeup information (accomplished by reviewing the technical architecture of the CLEC interface with the Telephone Companies' Loop Qualification System).
 - c. Documented our understanding of each application utilized by the Telephone Companies to process CLEC requests for actual loop makeup information.
 - d. Reviewed the technical architecture of each application utilized by the Telephone Companies to process CLEC requests for actual loop makeup information across the eight-state operating region.
 - 1. Reviewed the applications within the DSL loop qualification process to determine if the Telephone Companies were running multiple versions of the same application across the eight-state region or if all applications were running the same version of the software.
 - 2. Validated multiple instances of an application running were the same through review of application versions, system listings and change management documentation.
 - 3. Performed sample transaction testing across all companies/wire centers to validate system logic and results.
 - 4. Identified the platforms running the applications to ensure that all were the same instance or that each instance was tested.
 - 5. Reviewed the DataGate Directory Services (location broker) process and code to verify all instances of the applications running within the DSL loop qualification process were identified.
 - e. Obtained and reviewed the system requirements prepared by SBC's information technology department documenting the Loop Qualification System enhancement.

- 2. Reviewed programming logic associated with the enhancement made to the Loop Qualification System to determine if the logic was designed to process requests for actual loop makeup information in accordance with criteria specified in Management's assertions.
- 3. Monitored and validated internal testing performed by SBC personnel prior to placing the enhancement into production and afterwards by performing the following procedures:
 - a. Entered addresses for pre-determined scenarios into the Loop Qualification System and directly into LFACS. Results from the Loop Qualification System were compared to actual loop makeup information in LFACS to determine if the response was in agreement with information maintained in LFACS.
 - b. Monitored the accurate return of loop makeup information from LFACS: customer address, total loop length, loop length by segment, loop length by gauge, 26 gauge equivalent loop length, quantity of load coils, number of bridge taps, length of bridge taps, etc.
 - c. Assessed whether the enhancement was working as designed in the test environment based on the comparison of the results returned to the CLEC interface and the results in LFACS.
- 4. Selected and tested a sample of transactions to validate that loop qualification requests were processed as described in Management's assertion. This testing was performed in the production environment.
 - a. Judgmentally selected the St. Louis and Houston (SWBT), San Francisco and Carson City (PB/NB) and New Haven (SNET) markets for testing. Testing markets from each region determines whether the Loop Qualification System is extracting the correct information from the appropriate LFACS database.
 - b. Within each market, 60 test addresses were randomly selected for testing (300 total). A sample of 60 addresses in each market area was utilized to achieve a 95% confidence interval and 5% tolerable rate of occurrence per Ernst & Young statistical testing methodology with an expected error rate of zero.
 - c. For each of the 60 transactions sampled in each market, E&Y entered addresses for a DSL Loop Qualification request into Verigate and CIWIN (SNET) and independently retrieved actual loop makeup information, if it exists, by entering addresses directly into LFACS. Results returned to Verigate and CIWIN were compared with LFACS results to determine if the proper loop makeup information was returned based on the search criteria and time limits described above.
 - d. In our initial sample of 300 transactions, we noted 32 transactions in which the enhancement was not functioning as intended. As a result the Telephone Companies made changes in the programming. For these transactions, E&Y re-tested the original 32 transactions and verified that program changes made

- by the Telephone Companies on April 11 and April 13, 2001 were implemented and functioning appropriately for each of these transactions.
- e. Selected and tested an additional sample of 180 transactions from the following markets: New Brighton (SNET), Pasadena and Reno (PB/NB) and San Antonio and Oklahoma City (SWBT), subsequent to the April 13, 2001 enhancement and performed the procedures documented in "c" above.
- f. In addition, E&Y entered and tested 15 transactions via LSP Access/LSP West to determine if similar results were obtained via alternative CLEC interfaces (i.e., EDI/CORBA, DataGate) as procedure "c" above.
- 5. Verified the enhancements were placed into the production environment at SWBT, PB, NB and SNET from April 3 through April 13, 2001 through examination of system migration from the test to production environments.
- 6. Activated the log function within the Loop Qualification System to determine the timing of various events during the Loop Qualification process. Noted the time for submission of customer premise address information into Verigate/CIWIN and the return of information from LFACS via the Loop Qualification System and reviewed for possible time-out issues.

Conclusion

For Ernst & Young's conclusion please refer to the Report of Independent Accountants located in Appendix 1 of this supplement.

Appendix 1: Telephone Companies' Eight State Regional Loop Qualification Assertion and E&Y's Attestation Examination Report

SBC Operations, Inc. 530 McCullough, Suite 1439 San Antonio, Texas 78215 Phone 210 886-1600 Fax 210 886-1615 Email: vt2684@txmail.sbc.com



Report of Management on the Provision of Actual Loop Qualification Information to Competitive Local Exchange Carriers

Management of Southwestern Bell Telephone Company, Pacific Bell, Nevada Bell and Southern New England Telephone Company (collectively the "Telephone Companies," which are ILEC subsidiaries of SBC Communications Inc.) is responsible for providing Competitive Local Exchange Carriers (CLECs), upon their request, with access to actual loop qualification information (also referred to herein as loop makeup information) contained in the Telephone Companies' Loop Facilities Assignment and Control System (LFACS).

From April 3 through April 13, 2001, the Telephone Companies implemented enhancements to their Loop Qualification middleware system ("Loop Qualification System," or "the System"). With these enhancements, the Loop Qualification System will return actual loop makeup information (e.g., total loop length, loop length by segment, loop length by gauge, 26 gauge equivalent loop length, quantity of load coils, length of bridge taps) on a loop connected to the customer premise address requested by the CLEC, if such actual loop makeup information exists in LFACS for such a loop and can be located, retrieved, and returned within 120 seconds. The loop makeup information is retrieved through a two-step process. The System submits a request to LFACS to identify actual loop makeup information for all loops connected to the specified customer premise address. The medium type of the loop is determined - if fiber to the curb or DAML is identified, actual loop makeup information is returned to the CLEC interface. If metal (copper), combination or DAML medium type is identified, the logic within the system then selects the most appropriate loop with corresponding loop makeup information in LFACS. The logic prioritizes loop information in the following order: non-loaded copper loop, loaded copper loop, Digital Added Main Line (DAML), and Digital Loop Carrier (DLC). The second step requests detail loop makeup information from LFACS for the selected loop.

We assert that, as of April 13, 2001, the Loop Qualification System of the Telephone Companies, in response to a valid CLEC request, performs a search of the LFACS database for actual loop makeup information associated with a loop serving the customer premise address and returns within 120 seconds actual loop makeup information or design loop makeup information (if actual loop makeup information is not available) to a CLEC interface. The criteria utilized in making this assertion are as follows:

 The System will examine each loop inventoried in LFACS at the requested customer premise address that can be searched within 120 seconds, or until it finds a nonloaded copper loop with actual loop makeup in LFACS, leaving time to have either actual or design loop makeup information returned to the requesting interface before the system timeout deadline for the loop qualification inquiry.

- The System will search for a non-loaded copper loop connected to the requested customer premise address for which actual loop makeup information exists. If the System finds actual loop make-up information on a non-loaded copper loop connected to the requested customer premise address; then that actual loop makeup information is compiled and returned to a CLEC interface for transmission to the requesting CLEC.
- If the System cannot find actual loop makeup information on a non-loaded copper loop after searching all loops serving the requested customer premise address that can be searched within the specified time limit noted above; then actual loop makeup information that is found on a loop with the highest priority, as listed below, will be returned to the CLEC interface for transmission to the requesting CLEC: (a) loaded copper loop, (b) DAML, and (c) DLC.
- If the System determines that the requested customer premise address is served by fiber to the curb (FTTC); then the System will return actual loop makeup information for such a loop connected to the premise if such information exists. For Pair Gain (Medium Type B), the Loop Qualification System will look at the first two loops. Loop makeup information is returned for the first of the loops where it is available. If neither have actual loop makeup information, then design data loop makeup information will be returned to the CLEC interface for transmission to the requesting CLEC.
- Finally, if actual loop makeup information cannot be found on any loop after searching all loops serving the requested customer premise address that can be searched within the specified time limit noted above, then design data loop makeup information will be returned to the CLEC interface for transmission to the requesting CLEC.

Valid CLEC loop qualification requests are defined as complete addresses that match addresses stored within LFACS. If no LFACS address exists or the wire center is invalid, an error message is returned to the CLEC to check input data for accuracy.

Van Taylor

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Report of Independent Accountants

To Management of SBC Communications Inc.

We have examined management's assertion, included in the accompanying Report of Management on the Provision of Actual Loop Qualification Information to Competitive Local Exchange Carriers (Report of Management), that as of April 13, 2001, the Loop Qualification System of Southwestern Bell Telephone Company, Pacific Bell, Nevada Bell and Southern New England Telephone Company (collectively the "Telephone Companies"), in response to a valid CLEC request, performs a search of the LFACS database for actual loop makeup information associated with a loop serving the customer premise address and returns within 120 seconds actual loop makeup information or design loop makeup information (if actual loop makeup information is not available) to a CLEC interface in accordance with the criteria set forth in the Report of Management. The Telephone Companies' management is responsible for the assertion. Our responsibility is to express an opinion on management's assertion based on our examination.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants and, accordingly, included examining, on a test basis, evidence supporting management's assertion and performing such other procedures as we considered necessary in the circumstances. We believe that our examination provides a reasonable basis for our opinion.

In our opinion, management's assertion referred to above is fairly stated, in all material respects, based on the criteria set forth in the Report of Management.

This report is intended solely for the information and use of SBC Communications Inc. and appropriate regulatory agencies and is not intended to be and should not be used by anyone other than these specified parties. However, this report is a matter of public record and its distribution is not limited.

Ernst + Young LLP

April 20, 2001